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Request for Information (RFI)

Outline concept for Internet of Things (IoT) National Strategy

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Introduction:

The Internet of Things (IoT) has the potential to transform many aspects of our lives, from healthcare and transportation to energy and manufacturing, to environment and quality of life. To fully realize this potential, it is essential to develop a comprehensive national strategy for the use of IoT technology. This concept paper outlines such a strategy, with the goal of creating a favorable environment for the deployment and use of IoT technology in our country, supporting the development of a competitive and innovative IoT industry, and maximizing the benefits of IoT for society and the economy.

Vision and Goals:

Our vision for IoT is to create a smarter and more integrated and connected country, in which IoT technologies are used to improve people's lives and support sustainable economic growth. Our goals for IoT include:

- Increasing the use of IoT in key sectors such as healthcare, transportation, energy and the environment, to improve the delivery of services and to reduce cost and environmental footprint.
- Supporting sustainable economic growth, new job generation and improvement of quality of life.
- Fostering innovation and entrepreneurship in the field of IoT, to promote new products, services and application models.
- Ensuring that the benefits of IoT are shared by all citizens, regardless of their socio-economic status, age, or location.
- Promoting openness and international interoperability of IoT systems, through international collaboration.

Objectives

Infrastructure Development

One of the key components of an IoT national strategy is the development of an appropriate national infrastructure for IoT applications. The strategy should aim to support the deployment of a variety of communication technologies, including 5G, Low-Power Wide-Area Network (LPWAN) technologies (such as LoRaWAN, Sigfox, Narrowband IoT (NB-IoT)), Bluetooth Low Energy (BLE) and Zigbee, to cater to the specific needs of different IoT use cases and applications. Additionally, the strategy should aim to establish a strong data management and analytics infrastructure, as well as testing and experimentation facilities to support the development and testing of new IoT technologies and applications.



Policy and Regulation

The strategy should aim to establish a clear and consistent policy and regulatory framework for the deployment and use of IoT technology in Greece. This should include the harmonization of regulations across different sectors, promotion of data protection and security, and the encouragement of standardization to ensure the interoperability and security of IoT solutions. Furthermore, the strategy should aim to ensure that necessary measures are in place to comply with international standards, regulations and best practices, in order to facilitate the deployment and use of IoT across borders.

Research and Development

The strategy should aim to support and enhance research and development (R&D) efforts in IoT technologies and applications, by increasing funding for academic research, providing funding and support to companies working on IoT projects, and encouraging collaboration between industry and academia. Additionally, the strategy should aim to establish a strong innovation ecosystem by encouraging the participation of citizens in IoT-related projects and initiatives, to develop hands-on experience.

Human Capital Development

The strategy should aim to develop education and training programs to help citizens develop the skills they need to work with IoT technologies and participate in IoT-related projects. This would also include raising awareness about the benefits and risks of IoT and providing resources for citizens to understand and manage their personal data.

Innovation and Entrepreneurship

The strategy should aim to encourage innovation and entrepreneurship in the IoT sector by providing various forms of financial assistance to companies that are working on IoT projects. In addition, the strategy should aim to support the formation of incubators and accelerators for IoT-related start-ups, providing them with the necessary resources and support to develop their ideas and bring them to market.

Privacy and Security

The strategy should aim to ensure the protection and security of personal data generated and used by IoT devices and applications. This should include the development of robust data protection and security measures for the storage, management, and use of IoT-generated data, as well as the encouragement of the use of best practices in data security, such as encryption and secure



communication protocols. The strategy should also aim to raise public awareness of the risks and benefits of IoT and providing resources for citizens to understand and manage their personal data.

Potential Applications

The strategy should aim to identify and prioritize IoT applications that are most relevant to Greece, considering the country's needs and available resources. These could include, but not limited to, smart cities, smart energy, Industry 4.0, healthcare, agriculture and transportation.

Indicative domains of the Strategy

1. **Smart homes:** Internet-connected devices, such as thermostats, lighting systems, and appliances, can be controlled remotely and can be programmed to work automatically, increasing energy efficiency and convenience.
2. **Smart Cities:** IoT can be used to improve the efficiency and sustainability of various urban systems, such as transportation, energy, waste management, and public safety.
3. **Healthcare:** IoT can be used to improve the delivery of healthcare services, such as remote patient monitoring and telemedicine.
4. **Agriculture:** IoT can be used to improve the efficiency of agricultural production, such as precision farming and monitoring crop health.
5. **Transportation:** IoT can be used to improve the efficiency and safety of transportation systems, such as traffic management and vehicle-to-vehicle communication.
6. **Energy:** IoT can be used to improve the efficiency and sustainability of energy systems, such as smart grids and energy-efficient buildings.
7. **Industry 4.0:** IoT can be used to improve the efficiency and productivity of industrial processes, such as predictive maintenance and logistics management.
8. **Environment and Natural Resource management:** IoT can be used to monitor and manage various aspects of the environment, such as air and water quality, and to manage resources, such as monitoring wildlife population and activities.
9. **Public Services:** IoT can be used to improve the delivery of public services, such as e-governance and citizen engagement.
10. **Cybersecurity:** IoT can be used to protect against cyber threats, such as identifying and preventing cyber-attacks on devices and networks.
11. **Emergency response:** IoT can be used to improve emergency response and management, such as locating and tracking emergency responders, and coordinating emergency services in case of natural disasters.



Request for Information: National Strategy for the Internet of Things

Introduction

The Ministry of Digital Governance, General Secretariat of Telecommunications and Posts-Hellenic Republic, is committed to developing a comprehensive national strategy for the use of the Internet of Things (IoT) technology. The goal of the strategy is to create a favorable environment for the deployment and use of IoT technology in Greece, support the development of a competitive and innovative IoT industry, and maximize the benefits of IoT for society and the economy.

To achieve this goal, the Greek government is seeking information from interested parties on various aspects of an IoT national strategy. This Request for Information (RFI) invites responses from companies, research organizations, and other stakeholders that have expertise in the following areas:

Infrastructure Development:

- The development and expansion of 5G networks to provide high-speed connectivity for IoT applications.
- The development of other low-power wide area networking protocols such as LoRaWAN, Sigfox, Narrowband IoT (NB-IoT), LTE-M for IoT applications that require long-range communication, low data rate and low power consumption.
- The development of short-range wireless communication protocols such as Zigbee, Bluetooth Low Energy (BLE) for indoor IoT applications and smart home applications.
- The development of data storage, management, and analytics capabilities to support the large volume of data generated by IoT solutions.
- The building of IoT testbeds to support the development and testing of new technologies and applications.

Policy and Regulation

- The development of policies and regulations to create a favorable environment for the deployment and use of IoT technology.
- Harmonization of regulation across different areas to enable the deployment and use of IoT solutions.
- Promotion of data protection and security.
- Encouragement of standardization to ensure interoperability and security of IoT solutions.
- Support for Open Data policies where possible to promote transparency and innovation

Research and Development

- Increase in funding for academic research to develop new technologies and applications.
- Increase in funding for companies working on IoT projects to support the commercialization of new products and services.
- Encouragement of cooperation between industry and academics to foster innovation.



Human Capital Development

- Development of education and training programs to help citizens develop the skills they need to work with IoT technologies.
- Encouragement of the participation of citizens in IoT-related projects and initiatives, to develop hands-on experience.

Innovation and Entrepreneurship

- Provision of various forms of financial assistance to companies that are working on IoT projects.
- Encouragement of the formation of incubators and accelerators for IoT-related start-ups.

Privacy and Security

- Development of robust data protection and security measures for the storage, management, and use of IoT-generated data.
- Encouragement of the use of best practices in data security, such as encryption and secure communication protocols.
- Raising public awareness of the risks and benefits of IoT, and providing resources for citizens to understand and manage their personal data
- Cooperation with international organizations in setting standards for privacy

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